

## AT-270, AT-440 & AT-470 Series, Multiport Transceivers

AT-270 Series, 2 port transceivers

AT-440 Series, 4 port transceivers

AT-470 Series, 4 port transceivers

### KEY FEATURES

IEEE 802.3 compliant  
and Ethernet Version 1.0  
and 2.0 compatible

Interchangeable taps  
for thick (10Base5)  
and thin (10Base2)

Switch-selectable  
Signal Quality Error  
(SQE)/Heartbeat test  
with LED

Status and diagnostic LEDs

5 year warranty

These Multiport Transceivers are compact, highly reliable two and four port transceivers for users of Ethernet Local Area Networks (LANs.) These transceivers provide the electronic and physical interface between the Ethernet coaxial cable and the Ethernet/IEEE 802.3 station Data Terminal Equipment (DTE.)

The circuit designs of the AT-270 and AT-440 support two and four Attachment Unit Interfaces (AUIs) respectively, with a single circuit board and coaxial interface. The AT-470 transceiver incorporates the same circuit design but uses two independent boards to support four AUIs to the LAN media. These multiport transceivers offer superior quality and performance. They are easily and rapidly installed, while their compact design supports "pull-through" cable installations along narrow raceways.

These Multiport Transceivers use Surface Mount Technology (SMT) for reliability. Their sturdy metal construction ensures long-term, reliable operation in both commercial and industrial environments. These transceivers are compliant with the IEEE 802.3 specifications and are plug compatible with existing Ethernet networks.



These transceivers provide a user-selectable switch permitting the network manager a choice between enabling or disabling the SQE test. This choice ensures compliance with the IEEE specifications as well as extending the transceivers' functionality for use with repeaters. The AT-470 provides two user-selectable SQE switches, one for each circuit board, so that both device types can be supported simultaneously from one transceiver.

These Multiport Transceivers feature six, five and twelve LED indicators, respectively. These LEDs facilitate installation and assist in fault isolation.

# AT-270, AT-440 & AT-470 Series, Multiport Transceivers

## STATUS INDICATORS

Power	Indicates power for the transceiver circuit from an attached station
Transmit	Indicates packets from the station (AUI) are being transmitted on the Ethernet coaxial cable
Receive	Indicates packets are being received from the Ethernet coaxial cable
Collision	Indicates collisions are present on the network
SQE Test	Indicates SQE/Heartbeat test function has been enabled

## ELECTRICAL CHARACTERISTICS

Data Rate	10Mbps/CSMA/CD
-----------	----------------

## TRANSCEIVER CABLE INTERFACE

15 pin male subminiature D-connector with locking posts

Impedance:	
Input	78W $\pm$ 1%
Output	78W $\pm$ 5W
Input/Output Voltage	700 mv (Typical)

Coaxial Cable Interface:	
Input Impedance	>100KW
Capacitance	<2 pF
Input / Output Voltage	
DC Offset	-0.9 to -1.1v
AC Offset	$\pm$ 870mV (Typical)

<u>Transmit</u>	<u>Typical</u>	<u>Worst</u>
Transmit:		
Rise/Fall Time	25ns	$\pm$ 5ns
Static Delay	26ns	
Bit Loss	2 bits	
Jabber Control Time		29ms
Reset Time	413ms	
Recovery Time		1ms
Receive/Collision Static Delay		50ns
Bit Loss	5 bits	
Collision Detection Time		900ns
SQE Test Delay Time	860ns	
Length	752ns	

## POWER CHARACTERISTICS

Isolation:	
Impedance	250KW (Minimum) at 60 Hz
Breakdown Voltage	2000v
Supply Voltage (Station)	11.4v to 15.75v
Consumption	500 mA (Maximum) at 12v $\pm$ 5%

## ENVIRONMENTAL SPECIFICATIONS

Operating Temp	0°C to 50°C
Storage Temp.	-20°C to 60°C
Relative Humidity	5% to 80% noncondensing

## PHYSICAL CHARACTERISTICS

Dimensions:	
AT-270	16.3cm x 6.9cm x 3.3cm (6.4" x 2.7" x 1.3")
AT-440/AT-470	16.3cm x 6.9cm x 5.6cm (6.4" x 2.7" x 2.2")

Weight (less tap)	284g (10oz)
-------------------	-------------

## ELECTRICAL/MECHANICAL APPROVALS

EMI	FCC Class A
Safety	UL, CSA, TUV-GS

## ORDERING INFORMATION

**AT-274/444/474**  
Thin Coax, 10Base2 (BNC)

**AT-275/445/475**  
Transceiver only, no tap

**AT-276/446/476**  
Thick Coax, 10Base5 (Stinger type)

**AT-277/447/477**  
Thin Coax, 10Base2 (BNC-T)

**AT-278/448/478**  
Thick Coax, 10Base5 (N series)

**AT-279/449/479**  
Direct-Connect

## Accessories

AT-04	10Base2 BNC connector
AT-06	10Base5 Vampire connector
AT-07	10Base2 BNC-T connector
AT-08	10Base5 N-Series connector
AT-09	"Direct-Connect" internal termination and cover lid
AT-060-K	Vampire repair kit
AT-1220-K	Vampire connector installation tool kit
AT-BRKT-7A	Mounting bracket with strain relief
AT-BRKT-7B	Mounting bracket without strain relief

**Product Range:** Allied Telesyn's long-term focus on price/performance networking has made it a market-leading provider of LAN, WAN and MAN network systems. Advanced Layer 3 switch and router technology perfectly complements its traditional Layer 2 switch, hub, adapter card and media conversion capabilities.

**USA Corporate Headquarters:** 19800 North Creek Pkwy, Suite 200, Bothell, WA 98011, USA • Tel: 800.424.4284 • Fax: 425.481.3895

**European Headquarters:** Kon. Wilhelminaplein 13/2.10.03, 1062 HH Amsterdam, Netherlands • Tel: +31 20-346 07 00 • Fax: +31 20-346 07 10

[www.alliedtelesyn.com](http://www.alliedtelesyn.com)

© 2001 Allied Telesyn International Corp. All rights reserved. Information in this document is subject to change without notice.  
All company names, logos, and product designs that are trademarks or registered trademarks are the property of their respective owners.

617-00151-00 Rev. A



**Allied Telesyn**  
Simply connecting the IP world